

WHAT IS CLAIMED IS:

1. A method of transmitting user data on a reverse common channel with a reverse dedicated channel released, comprising the steps of:

dividing user data into a plurality of segmented messages if the user data is longer than a data segment in a frame of the reverse common channel;

transmitting the plurality of segmented messages in the data segments of consecutive frames on the reverse common channel; and

determining whether a base station receives each of the segmented messages.

2. The method of claim 1, wherein the reverse common channel is a power-controlled logical dedicated channel.

3. The method of claim 2, wherein each of the consecutive frames has a segmented message, a sequence number corresponding to the segmented message, and information indicating the presence or absence of a segmented message in a succeeding frame.

4. The method of claim 1, wherein the determining step further includes the step of receiving a response message from the base station indicating reception of each of the segmented messages.

5. The method of claim 4, wherein the response message includes information indicating reception of a particular segmented message, and a sequence number identifying the particular segmented message.

6. The method of claim 1, wherein the determining step further includes the step of receiving a response message from the base station indicating a failed reception of a particular segmented message.

7. The method of claim 6, further comprising the step of retransmitting, by the mobile station, at least the particular segmented message in response to the mobile station receiving the response message indicating a failed reception of the particular segmented message.

8. The method of claim 7, further comprising the step of determining by the mobile station whether a response message indicating reception of the retransmitted segmented message is received from the base station.

9. The method of claim 8, further comprising the step of determining whether the response message indicating reception of the retransmitted segmented message is received from the base station within a predetermined time period.

10. The method of claim 9, wherein the response message indicates reception of the retransmitted segmented message in the base station if the response message is received from the base station within the predetermined time period.

11. The method of claim 1, further comprising the step of determining whether a response message indicating reception in the base station of a last segmented message is received from the base station.

12. The method of claim 11, further comprising the step of determining whether the response message indicating reception of the last segmented message is received from the base station within a predetermined time period.

13. The method of claim 11, further comprising the step of the base station retransmitting the last segmented message if the response message indicating reception of the last segmented message is not received from the base station within a predetermined time period.

14. The method of claim 11, further comprising the step of the base station transmitting a succeeding segmented message based on receiving a response message from the base station if the received response message does not correspond to the response message indicating reception in the base station of the last segmented message.

15. A method of transmitting a message via consecutive frames on a reverse common channel from a mobile station to a base station, where the message is segmented into a plurality of message segments and each of said consecutive frames includes a user data field on which one of the plurality of message segments is loaded, and a field indicating whether a following frame contains a message segment, said method comprising the steps of:

sub a2 checking the more flag field of each frame;
checking CRCs (Cyclic Redundancy Codes) of each frame; and
determining whether the totality of message segments transmitted via the consecutive frames are received at the base station by checking a count of the more flag field.

16. The method of claim 15, wherein the reverse common channel is a power-controlled logical dedicated channel.

17. The method of claim 15, further comprising the step of transmitting a response message from the base station to the mobile station upon the base station receiving one of the plurality of message segments, said response message indicating reception of one of the plurality of message segments.

18. The method of claim 17, wherein the response message includes information indicating reception of one of the plurality of message segments, and a sequence number of said one of the plurality of message segments.

19. The method of claim 17, further comprising the step of making a second transmission request by the mobile station for one of the plurality of message segments, if said one of the plurality of message segments is not received by the mobile station within a predetermined time after reception of a previous message segment.

20. The method of claim 19, further comprising the step of transmitting a response message, by the mobile station, indicating reception of the retransmitted one of the plurality of message segments to the mobile station, said response message being transmitted after a predetermined time from the transmission of the retransmission request.

21. The method of claim 15, further comprising the step of sending a response message to the mobile station indicating reception of a last message segment of the plurality of message segments upon reception of the last message segment by the base station.

22. The method of claim 15, further comprising the step of requesting retransmission of a message segment, by the base station, of said plurality of message segments, if said message segment has an error.

23. The method of claim 15, further comprising the steps of:

5 determining whether reception of the plurality of message segments has been completed by continuously checking the more flag fields; and

reassembling the received plurality of message segments when reception has been completed.

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